

CDS 130 Quiz (4/18/2012)
(20 minutes, 5 points in total)

Name :

Do not use Matlab for this quiz. Each problem is worth 1 point.

1. Will the following code produce an error ? explain

```
clear;
clc;
A=-2:2;
B = 0;
for i=1:4
    if ~A(i)
        B = B+ A(i);
    end
end
```

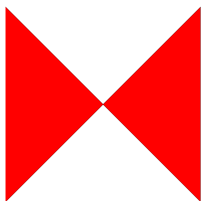
2. Print out the answer for A

```
A(10) = 0.0;
for i = 1:10
    if (mod(i, 2)==0)
        A(i) = 1;
    end
end
A
```

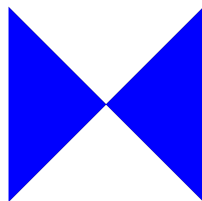
3. The 'fill' command can be used to plot polygons with filled colors. Which plot will be generated by executing the following command lines?

```
clear;
fill([0, 1, 1, 0], [1,1, 0, 0], [0,0,1]);
axis square off;
```

(A)



(B)



(C)



(D)



4. Given vectors $x=[-1, 2, 3, -2]$, $y=[0.2, 3.1, 0, -3]$ and $z=[3, 0, 1, 0.1]$, provide answers to the following operations

- (A) $x < y > z$
- (B) $x + \sim y > z$
- (C) $x == y \sim z$

5. Predict the image produced with the following MATLAB code

```
clear; clc
map = [0 1 0; 1 0 0; 1 1 0; 1 0 1; 0 0 1;];
A(5,5) = 0;
for m = 1:5
    for n = 1:5
        if mod(m+n,5) == 3
            A(n,m) = 0;
        elseif mod(m+n,5) == 4
            A(m,n) = 5;
        end
    end
end
colormap(map)
image(A)
colorbar
```